believe that we have found in this fact a reason for the greater frequency of traumatic diseases of the cervical cord than elsewhere. According to our opinion, we are not in a position to determine from the clinical picture of a spinal cord trauma the definite pathological process which underlies it. The primary degeneration is divided into a lymphogenous and an ischemic form. The pathological changes in the meninges are divided into hemorrhages, scar-tissue formation, shrinking and adhesive meningitis. The lymphatic apparatus into lymph infiltration, degeneration, cavity formation; vascular system into a primary and secondary hemorrhage, hyperemia, endothelial growth, change of the adventitia into embryonic tissue with regenerative function, pure periarteritis and arteritis; Glia tissue into moderate proliferation; Nervous tissue into primary mechanical destruction, lymphogenous and ischemic degeneration (primary necrosis). Root diseases and cell changes are often found at a distance from the location of the lesion. SCHWAB.

REPERTO ANATOMO-PATOLOGICO DI UN CASO DI EPILESSIA CON MIOCLONIA (Report of Autopsy of a Case of Epilepsy with Myoclonus). Rossi and Gonzales (Annali di Nevrologia, Vol. xviii, No. iv).

The authors refer to the three cases reported in this journal in 1899 by Verga and Gonzales, in which epilepsy and myoclonus were associated. The first case reported by these authors having died, the present writers secured the opportunity for an autopsy including histological studies. (But one or two pathological studies are on record.) The history of the patient is briefly recapitulated as follows: Carlo B., single, entered Milan Provincial Insane Asylum in 1894 when 32 years of age, for epileptic insanity, for which he had been treated on several prior occasions at the Ospedale Maggiori. The epilepsy began when the patient was seven years old. His family history was very bad; his father demented, mother eclamptic, one brother and two sisters epileptic. Toward the age of 20, patient had added to his epilepsy the phenomena of myoclonus, which became more and more frequent, and was accompanied at times by violent maniacal agitation. Upon admission, patient was seen to have notable facial asymmetry, but no other anomalies. His epileptic attacks did not exceed one a month. The phenomena of myoclonus were seen to be present in the limbs and face, especially the frontal muscles, the head being moved backward and sidewise, the shoulders suddenly elevated and depressed, the arms and legs elevated and abducted. The patient had to keep his bed on account of the danger of falling, and was unable to feed himself properly. His mental condition became worse, and from a mild disposition he developed in the last few months of life an irascibility and impetuosity, with hallucinations. The myoclonus became worse and worse, nutrition failed, finally pleurisy developed with a high degree of effusion, the patient dying in March, 1900. An autopsy was held March 27, 1900, the day after death. Dr. Verga was responsible for the macroscopic and Dr. Gonzales for the microscopic findings. External appearances: emaciated; rigor mortis only in the right lower extremity; slate colored macules on trunk (inferior external aspect of thorax). Head irregular in shape. Thorax right pleural sac filled with bloody serum. Lung on that side compressed. The left lung showed

old pleuritic adhesions. A small amount of fluid in pericardium. Heart of normal size. No evidences of atheroma of aorta or coronaries. Valves all normal. Abdomen: viscera normal. Brain: cranial bones thicker than normal; no traces of sutures; two depressions by the side of the sagittal line in front. Right half of cranium has less capacity than the left. When the dura was incised a clear serum escaped; the dura was thickened; arachnoid and pia pallid and infiltrated with serum. Pia readily came away from cortex beneath. No atheroma of Sylvian artery or other vessels. The brain substance was pale, and of normal consistency. Nothing abnormal was discovered in the nerve centers as far as the naked eye appearances are concerned. The microscopic findings are as follows: the dendrites showed a rosary-like series of swellings, varicosities. The fibers in the white substance also exhibited varicosities and atrophy. The neuroglia was in general atrophic. In the cerebellum the pigment in the nerve cells was much diminished. In the cord, the ganglionic elements exhibited a breaking up of the pigment. This chromatolysis was marked in all the cells of the medulla. The entire nervous system whether encephalon, spinal cord, peripheral nerves. etc., showed the same type of degeneration. This degeneration was based upon the anemic condition of the brain, especially in the Rolandic region and foot of the third frontal convolution on both sides, in which regions the epileptogenous zone appears to be seated.

CLARK.

EIN FALL VON TRAUMATISCHER SPÄTAPOPLEXIE (A Case of late Traumatic Apoplexy) J. Mazurkiewicz (Jahrbücher für Psychiatrie und Neurologie, Vol. xix, 19th Year, p. 551).

Case of a man who received a trauma from a fall. No symptoms followed immediately upon the accident. A few weeks later the patient fell again. Following this there developed headaches, somnolence, speech disturbance, paralysis. An examination made five days after the second fall showed no paresis, ataxia, or sensory disturbance. No mental involvement. The speech however was monotonous and heavy. There developed in the course of a week aphasia with, however, a complete comprehension of words, difficulty in deglutition, and gradually increasing right-sided paralysis with spastic condition of lower extremities. Under increasing stupor and inability to take nourishment, the patient died. Autopsy: Left lateral ventricle is full of blood originating from a hemorrhagic focus in the thalamus opticus, which had broken through into the ventricle. Third ventricle also contained fluid blood. Hehorrhagic focus in left side of pons. These findings are typical of late apoplexy and confirm the opinion of Michel that the site of predilection in late traumatic apoplexy is first the base of the brain, then the walls of the lateral ventricle, the aqueduct of Sylvius and the fourth ventricle. The diagnosis of this condition can be very difficult, even impossible, especially when the clinical history cannot be obtained. Tumor, abscess, encephalitis are of differential diagnostic importance. When symptoms pointing to a break into the ventricles are present a lumbar puncture may show the presence of a hemorrhagic fluid, as was found in this case.

SCHWAB.

TOXICITÉ DE LA SUEUR DES EPILEPTIQUES (Toxicity of the Sweat of Epileptics), Mairet and Ardin-Delteil (Soc. de Biol. Dec. 14, 1900).